1.   A method of emulating a switched Ethernet local area network in a platform having a plurality of computer processors, a switch fabric and point-to-point links to the processors, comprising:

providing Ethernet driver emulation logic to execute on at least two computer processors;

providing switch emulation logic to execute on at least one of the computer processors;

establishing a virtual interface between the switch emulation logic and each computer processor having Ethernet driver emulation logic executing thereon to allow software communication therebetween, wherein each virtual interface defines a software communication path from one computer processor to another computer processor via the switch fabric;

establishing a virtual interface between each computer processor having Ethernet driver emulation logic executing thereon and every other computer processor having Ethernet driver emulation logic executing thereon;

if the virtual interface between one computer processor and another is operating to satisfy predetermined criteria, the Ethernet driver emulation logic of the one computer processor unicast communicating with the other computer processor via a virtual interface defining a software communication path therebetween; and

if the virtual interface between one computer processor and another is operating to not satisfy predetermined criteria, the Ethernet driver emulation logic of the one computer processor unicast communicating with the other computer processor via a virtual interface to the switch emulation logic which transmits the unicast communication to the other computer processor.

2.   The method of claim 1 wherein each of the computer processors having Ethernet driver emulation logic executing thereon is associated with a virtual MAC address and wherein the MAC addresses are formed according to rules to identify the computer processor as one of the plurality of computer processors distinct from MAC addresses of an external network.

3.   The method of claim 2 wherein the platform is connected to an external network via interface logic for communicating with an external network, wherein the external network interface logic is associated with its own MAC address, and wherein messages are

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communicated on the external network using the MAC address of the external network interface logic.

4.   The method of claim 1 wherein a first computer processor uses a first virtual interface to unicast communicate with a second computer processor but wherein the second computer processor uses a different virtual interface to communicate to the first computer processor.

5.   The method of claim 1 wherein each computer processor includes switch fabric driver logic for communicating on the point to point links and that includes check summing capability and wherein the Ethernet driver emulation logic includes check summing capability but disables such check summing if the switch fabric driver logic has already check summed a message.

6.   The method of claim 5 wherein the switch fabric driver logic implements a reliable communication protocol to ensure reception of messages over the switch fabric.

7.   The method of claim 1 wherein the switch fabric and point to point links are arranged in a redundant configuration.

8.   The method of claim 1 wherein the Ethernet driver emulation logic broadcast communicates a message by sending the message to the switch emulation logic via a virtual interface and wherein the switch emulation logic receives and clones a broadcast message from a virtual interface and transmits the cloned message to other computer processors in the network.

9.   The method of claim 1 wherein the switch emulation logic defines and maintains computer processor membership to an emulated network.

10.   The method of claim 1 wherein the Ethernet driver emulation logic transmits messages larger than maximum transmission unit (MTU) size.

11.   A system for emulating a switched Ethernet local area network, comprising:
        a plurality of computer processors;
        a switch fabric and point-to-point links to the processors;

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virtual interface logic to establish virtual interfaces over the switch fabric and point-to-point links, wherein each virtual interface defines a software communication path from one computer processor to another computer processor via the switch fabric;

Ethernet driver emulation logic, executing on at least two computer processors;

switch emulation logic, executing on at least one of the computer processors, including

logic to establish a virtual interface between the switch emulation logic and each computer processor having Ethernet driver emulation logic executing thereon to allow software communication therebetween,

logic to receive a message from one of the virtual interfaces to a computer processor having Ethernet driver emulation logic executing thereon and to transmit a message to another computer processor having Ethernet driver emulation logic executing thereon, in response to addressing information associated with the message; and

logic to establish a virtual interface between each computer processor having Ethernet driver emulation logic executing thereon and every other computer processor having Ethernet driver emulation logic executing thereon;

wherein the Ethernet driver emulation logic includes logic to unicast communicate with another computer processor in the emulated Ethernet network via a virtual interface defining a software communication path therebetween if the virtual interface is operating to satisfy predetermined criteria, and via the switch emulation logic if the virtual interface is not operating to satisfy predetermined criteria.

12.   The system of claim 11 wherein each of the computer processors having Ethernet driver emulation logic executing thereon is associated with a virtual MAC address and wherein the MAC addresses are formed according to rules to identify the computer processor as one of the plurality of computer processors distinct from MAC addresses of an external network.

13.   The system of claim 12 further comprising external network interface logic for communicating with an external network, wherein the external network interface logic is

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associated with its own MAC address, and wherein the switch emulation logic includes logic for sending messages to the external network interface logic for communication on to the external network, wherein such messages are communicated on the external network using the MAC address of the external network interface logic.

14.   The system of claim 11 wherein a first computer processor uses a first virtual interface to unicast communicate with a second computer processor but wherein the second computer processor uses a different virtual interface to communicate to the first computer processor.

15.   The system of claim 11 wherein each computer processor includes switch fabric driver logic for communicating on the point to point links, and wherein the switch fabric driver logic includes check summing capability and wherein the Ethernet driver emulation logic includes check summing capability and includes logic to disable check summing within the Ethernet driver emulation logic if the switch fabric driver logic has check summed a message.

16.   The system of claim 15 wherein the switch fabric driver logic implements a reliable communication protocol to ensure reception of messages over the switch fabric.

17.   The system of claim 11 wherein the switch fabric and point to point links are arranged in a redundant configuration.

18.   The system of claim 11 wherein the Ethernet driver emulation logic includes logic to broadcast communicate a message by sending the message to the switch emulation logic via a virtual interface and wherein the switch emulation logic includes broadcast logic to receive and clone a broadcast message from a virtual interface and to transmit the cloned message to other computer processors in the network.

19.   The system of claim 11 wherein the switch emulation logic includes logic to define and maintain computer processor membership to an emulated network.

20.   The system of claim 11 wherein the Ethernet driver emulation logic includes logic to transmit messages larger than maximum transmission unit (MTU) size.

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